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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/990,023	11/21/2001	Donald J. Glaser	100.349US01	2756

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EXAMINER

JONES, PRENELL P

ART UNIT	PAPER NUMBER
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2616

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/990,023

Applicant(s)

GLASER ET AL.

Examiner

Prenell P. Jones

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-9 and 11-70 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-46 and 57-70 is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5 and 47 is/are rejected.
- 7) ☒ Claim(s) 6-10 and 48-56 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

Response to Arguments

1. Applicant's arguments with respect to claims 1, 2 and 4-70 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 1, 2, 4 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abbott et al (US Pat 4,412,323) in view of Rao (US Pat 6,577,728) and Fitzgerald (US Pat 5,509,065).

Regarding claims 1, 2 and 4, Abbott discloses a monitoring and control system as associated with protective switching that provides alternate data paths and multiplex selection of path groups wherein the architecture includes multiplexers/de-multiplexer with and an input for receiving signals and multiple outputs, selected group of paths, whereby a module is associated with a group of transmission paths which consist of plurality of main lines (input/outputs) and a standby line (input/output) as associated with a multiplexer system (Abstract, Fig. 1, 5, 8, 9, 15, 18, col. 2, line 54 thru col. 3, line 58, col. 4, line 20-50, col. 5, line 12-60, col. 6, line 47-67, col. 17, line 30-55). However, Abbott is silent on a remote circuit switching a redundant path for a faulty transmission path at a subscriber. In a communication monitoring system, Rao discloses a re-provisioning communication monitoring system wherein the architecture includes groups of transmission lines, whereby each group of transmission lines include dedicated lines and idle and reserved transmission line, and Rao further discloses that it is known in the prior art (Figure 1-4) a RDT (remote data terminal) that dynamically assigns DS0s transmission line, a switching monitoring system that consist of an RDT that includes a fault analysis element which detects faults and the reserved lines are available to cover detected faulty lines (Abstract, col. 1 line 42 thru col. 2, line 60, col. 3, line 43 thru col. 4, line 57), and Fitzgerald discloses a communication monitoring system associated with telecommunication protective switching mechanism that includes multiple T-1 and DS-1 transmission lines, wherein spare transmission lines exist, remote control of switching from a remote location switch faulty transmission line for spare line, group of lines/paths

Art Unit: 2616

are interconnected through group of relays at the service end/remote end (col. 1, line 59 thru col. 2, line 50, col. 4, line 1-67). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to be motivated to implement a remote circuit for switching a redundant path for a faulty transmission path as disclosed by the combined teaching of Rao and Fitzgerald switching and monitoring and control system with the teachings of Abbot for the purpose of further managing transmission via monitoring and controlling transmission of data in a switching environment.

1. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Abbott et al (US Pat 4,412,323) in view of Rao (US Pat 6,577,728) and Fitzgerald (US Pat 5,509,065) as applied to claim 1 above, and further in view of Slana et al (US Pat 4,160,127).

Regarding claim 5, as indicated above, Abbot, Rao and Fitzgerald combined teaches managing transmission associated in a switching environment via monitoring and control, wherein the architecture includes groups of transmission lines whereby each group consist of multiple standard transmission/dedicated transmission lines and at least one spare line, whereby switching a detected faulty line for a spare line is performed by a remote location. Although, Abbot, Rao and Fitzgerald fail to teach or suggest utilizing at least 5 standard transmission lines associated with the group of standard transmission lines and a spare line, Examiner takes official notice that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify

Art Unit: 2616

the number of primary channels to group together with respect to the size or system required usage for the purpose of providing adequate resources to system users. For example, in a switching environment whereby system is monitored for faults as well as managing transmission, Slana discloses a protection switching environment wherein a group of time division paths that includes a group of seven paths and a spare path (col. 3, line 60 thru col. 4, line 28). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to be motivated to implement 5 standard line or any number of standard lines as associated with the group of transmission lines as taught by Slana with the combined teachings of Abbot, Rao and Fitzgerald for the purpose of further monitoring, controlling and managing transmission in a switching system as to further accommodate users access.

Allowable Subject Matter

1. Claims 11-46 and 57-70 are allowed over prior art.
2. Claims 6-9, 10, 48-56 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Although the prior art discloses communication systems that implement protection switching techniques and mechanism whereby redundant/backup paths are utilized in case of a fault occurring for the purpose of providing continuous transmission in a communication system, they fail to teach or suggest, with respect to claim 6, management unit coupled to control the multiplexer and the remote circuit, the

Art Unit: 2616

management unit having a memory to store switching data, with respect to claim 10, line unit for each transmission path to provide an asynchronous DS1 interface with the DSL and a remote unit for each transmission line to provide an interface from DSL interface back to DS1 at customer premise, with respect to claim 8 and 9, a line unit for each transmission pay, and a remote unit for each transmission line from DSL back to DS1, with respect to claim 11, a controller card coupled to control the plurality of relays, wherein the control card is coupled to receive control signals from management unit, with respect to claim 22, the remote circuit having a switch relay for each standard transmission path, each switch relay is coupled to an associated standard transmission path, each switch relay having a first position to provide a connection to a subscriber and a second position to provide a connection to a redundant transmission path with respect to claim 36, a remote shelf enclosure having a remote unit card having a remote unit removably coupled in the protection remote unit slot, a protection switching controller card having a protection switching controller removable coupled in the protecting switching controller slot, with respect to claim 48, replacing faulty transmission path with a plurality of relays at a remote circuit, with respect to claim 51, passing the control commands through an embedded operating channel to an associated remote unit in the transmission path, passing the control commands through an automatic protection switching bus to a controller card in a remote circuit that controls the relays and selectively positioning the relay in response to the control signals, with respect to claim 57, coupling the redundant transmission path to an end portion of the standard transmission path with errors at the remote circuit, wherein the

Art Unit: 2616

signals directed to the standard transmission path with errors are routed around the standard transmission path, with respect to claim 66, a remote circuit including a remote protection remote unit card having a protection remote unit removable coupled in the protection remote unit slot and selectively coupling a protection switching controller in a protection controller slot, and selectively coupling a protection remote unit in a protection remote slot.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prenell P. Jones whose telephone number is 571-272-3180. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Prenell P. Jones

December 30, 2006


CHI PHAM
SUPERVISORY PATENT EXAMINER

1/4/07